L 12139-66

ACC NR: AP6000456

substantially with increasing intensity of the ultrasonic vibrations. The experiments showed that ultrasound can be successfully used to prevent deposit formation in gas apparatus and piping systems. Orig. art. has: 2 figures, 1 table, and 1 formula.

SUB CODE: 20,07/ SUBM DATE: 00 / ORIG REF: 004 / OTH REF: 001

HW

Card 2/2

REYBAS, M.S.; [illegible]N, A.N.; KOCHAYEVA, A.V.; KLESHCHEVNIKOVA, S.I.

[illegible] method for the production of triethylamine. Khim.prom. (MIRA 18:8)
42 no.4:15-17 Ap '66.

VODYANITSKIY, O.A.; TSIRLIN, A.M.; KOROBKOV, Ye.I.

Application of ultrasonic waves for decreasing deposit formation on the walls of piping systems. Khim. prom. 42 no.9:703-705 S '65. (MIRA 18:9)

REYBAKH, M.S.; TSIRLIN, A.M.; KLESHCHEVNIKOVA, S.I.; VOLKOV, V.L.; MATVEYEV, B.I.; KAZAKOVA, N.V.

Wetted-wall apparatus for continuous synthesis of triethoxysilane. Biul.tekh.-ekon.inform.Gos.nauch.-issl.inst.nauch.i tekh.inform. no.9:21-23 '62. (MIRA 15:9)

(Distillation apparatus)
(Silane)

AUTHOR: Tsirlin, A.M., Engineer SOV-91-58-10-6/35

TITLE: The Use of an EKR as a Propagator of the Impulse for Regulating the Pressure in High-power Boiler Houses (Ispol'zovaniye EKR kak razmnozhitelya impul'sa pri regulirovanii davleniya v moshchnykh kotel'nykh)

PERIODICAL: Energetik, 1958, Nr 10, pp 10 - 11 (USSR)

ABSTRACT: The author states that when regulating the pressure in boiler houses with a large number of boilers, it often happens that there are insufficient windings on the output transformer for the electronic correcting regulator (EKR) which regulates the pressure in the main. He suggests that the best system is one according to which one EKR receives pulses from 2 or 3 sensitive pressure gages and, depending on the distribution of the turbine loads, maintains a given pressure at one or another point of the steam pipe. For the propagation of the pulse from this EKR, one more amplifier is needed. This raises a complication, namely that the necessary stability of output must be secured. Another EKR could be used as an amplifier. However, if the signal on the output of the primary EKR is simply reduced to the level of the pickup and

Card 1/2

The Use of an EKR as a Propagator of the Impulse for Regulating the Pressure in High-power Boiler Houses

fed into the input of the second EKR, then the instability on the output will be far higher than is admissible. The author then describes in detail the alterations which have to be made to the EKR propagator circuit to avoid this, and finally says that the described circuit has been set up and is now working at the Argayask Thermo-Electric Power Station of Chelyabenergo. There is one circuit diagram.

1. Boilers--Operation 2. Electronic equipment--Applications
3. Pressure gages--Equipment

Card 2/2

S/193/62/000/009/001/002
A004/A101

AUTHORS: Reybakh, M. S., Tsirlin, A. M., Kleshchevnikova, S. I., Volkov, V. L., Matveyev, B. I., Kazakova, N. V.

TITLE: Film-type apparatus for the continuous triethoxysilane synthesis

PERIODICAL: Byulleten' tekhniko-ekonomicheskoy informatsii, no. 9, 1962, 21 - 23

TEXT: This new apparatus for the continuous triethoxysilane synthesis, in which the reaction and desorption zones are separated, has been developed by an organization of the Gosudarstvenny komitet po khimii (State Committee on Chemistry) at the Council of Ministers of the USSR. The apparatus is a film-type mass-exchange column, whose design and operation are described. A table gives comparative data on the triethoxysilane synthesis in film-type and bubbler apparatus. The raw material consumption in the former is only half of the latter, while the output of the film-type apparatus is by 25% higher than that of the bubbler type. Comparing the technical and design data of the continuous film-type apparatus with those of the periodic bubbler apparatus, it is shown that the working volume and hydraulic resistance of the film-type apparatus are considerably lower than

Card 1/2

those of the bubbler apparatus, while the specific surface of heat exchange and the specific surface of phase contact are many times larger (345 and 130 times respectively), which ensures a sharp reduction in desorption time. There are 1 figure and 2 tables.

Card 2/2

REYBAKH, M.S.; TSIRLIN, A.M.; MOZHAYKIN, A.S.; BORISOV, V.F.; TISHINA, N.N.

Studying the continuous process of cohydrolysis of organosilicon monomers used for the manufacture of electric insulation lacquers. Lakokras.mat. i ikh prim. no.2:64-67 '64. (MIRA 17:4)

REYBAKH, M.S.; TSIRLIN, A.M.; KLESHCHEVNIKOVA, S.I.

Continuous synthesis of triethoxysilane. Khim. prom. 40 no.9:659-663 S '64. (MIRA 17:11)

TSIRLIN, A.M.; VORONIN, B.D.; KHODOV, G.Ya.

Hydraulic resistance in a high-temperature gas flow in tubes with irregularly shaped packing. Inzh.-fiz. zhur. 7 no.8:103-107 Ag '64. (MIRA 17:10)

ACC NR: AP7004634 SOURCE CODE: UR/0288/66/000/003/0057/0065

AUTHOR: Voronin, B. D.; Tsirlin, A. M.; Smelyanskiy, M. Ya.

ORG: none

TITLE: Method for determining the operating parameters and the basic geometrical dimensions of vortex-stabilized electric-arc generators

SOURCE: AN SSSR. Sibirskoye otdeleniye. Izvestiya. Seriya tekhnicheskikh nauk, no. 3, 1966, 57-65

TOPIC TAGS: plasma generator, plasma heating, plasma arc, electric arc, plasma jet, arc discharge

ABSTRACT: A method is developed for calculating the basic working parameters of vortex-stabilized electric-arc plasma generators used as plasma jet sources, as high-temperature gas heaters, and as chemical reactors. In particular, expressions are derived for determining the volt-ampere characteristic and the characteristic geometrical diameter of the anode of such generators. In addition, the effects of current, gas discharge, and geometrical dimensions on the conditions of arc stabilization are considered. It is shown that the length of the anode, which is determined by the length of the arc discharge in its channel, has an appreciable effect on thermal characteristics of the generators. Other geometrical parameters, such as the diameter and length of both the vortex chamber and cathode, the number and cross-sectional area of inlet nozzles, and the spacing between the electrodes, do not

Card 1/2 UDC: 621.373.3

ACC NR: AP7004634

necessarily affect the basic characteristics of the generators and arc stabilization conditons. The derived expressions were used in designing a 1000-kw electric arc hydrogen heater. Orig. art. has: 6 figures and 14 formulas.

SUB CODE: 20/ SUBM DATE: none/ ORIG REF: 009/ OTH REF: 001

Card 2/2

TSIRLIN, A.M.; SAKHIYEV, A.S.; VORONIN, B.D.; KHODOV, G.Ya.

Heat transfer between the wall of a packed tube and a gas at elevated temperatures. Inzh.-fiz. zhur. 7 no.1:28-36 Ja '64. (MIRA 17:2)

BALAKIREV, V.S.; DUDNIKOV, Ye.G.; KLOKOV, Yu.L.; MASLENNIKOV, I.M.; TSIRLIN, A.M.

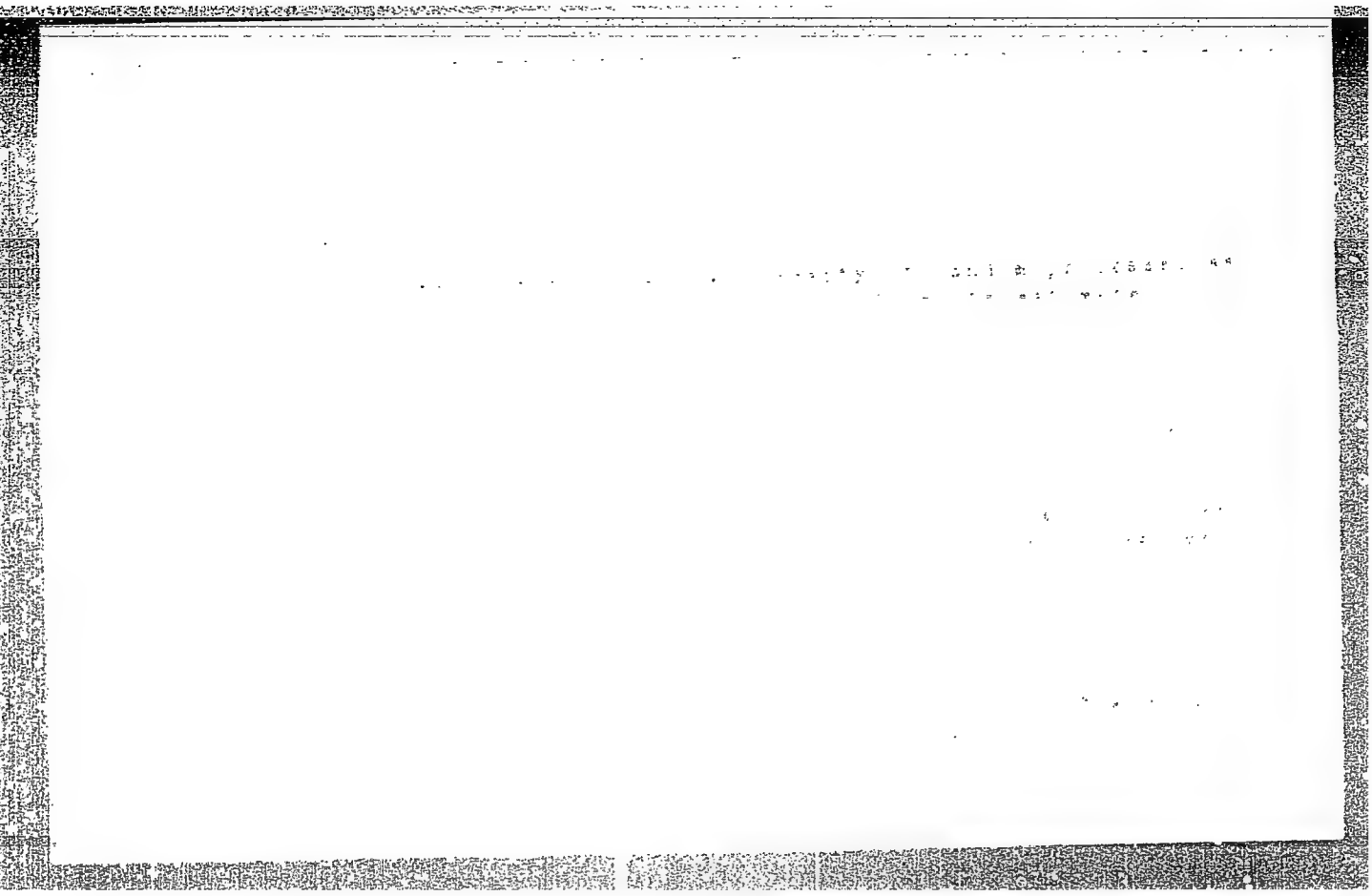
Solving some problems of automatic control by means of the analogue digital computer. Trudy MIKHM 25:3-17 '63.
(MIRA 17:6)

TSIRLIN, A.M.

Cumulative transformation of functions. Trudy MIKHM 25: 18-25 '63.

Adjustment of regulators in industrial systems taking the nature of excitation into account. Ibid.:80-91

Approximation of spectral characteristics by means of Chebyshev polynomials. Ibid.:128-137 (MIRA 17:6)



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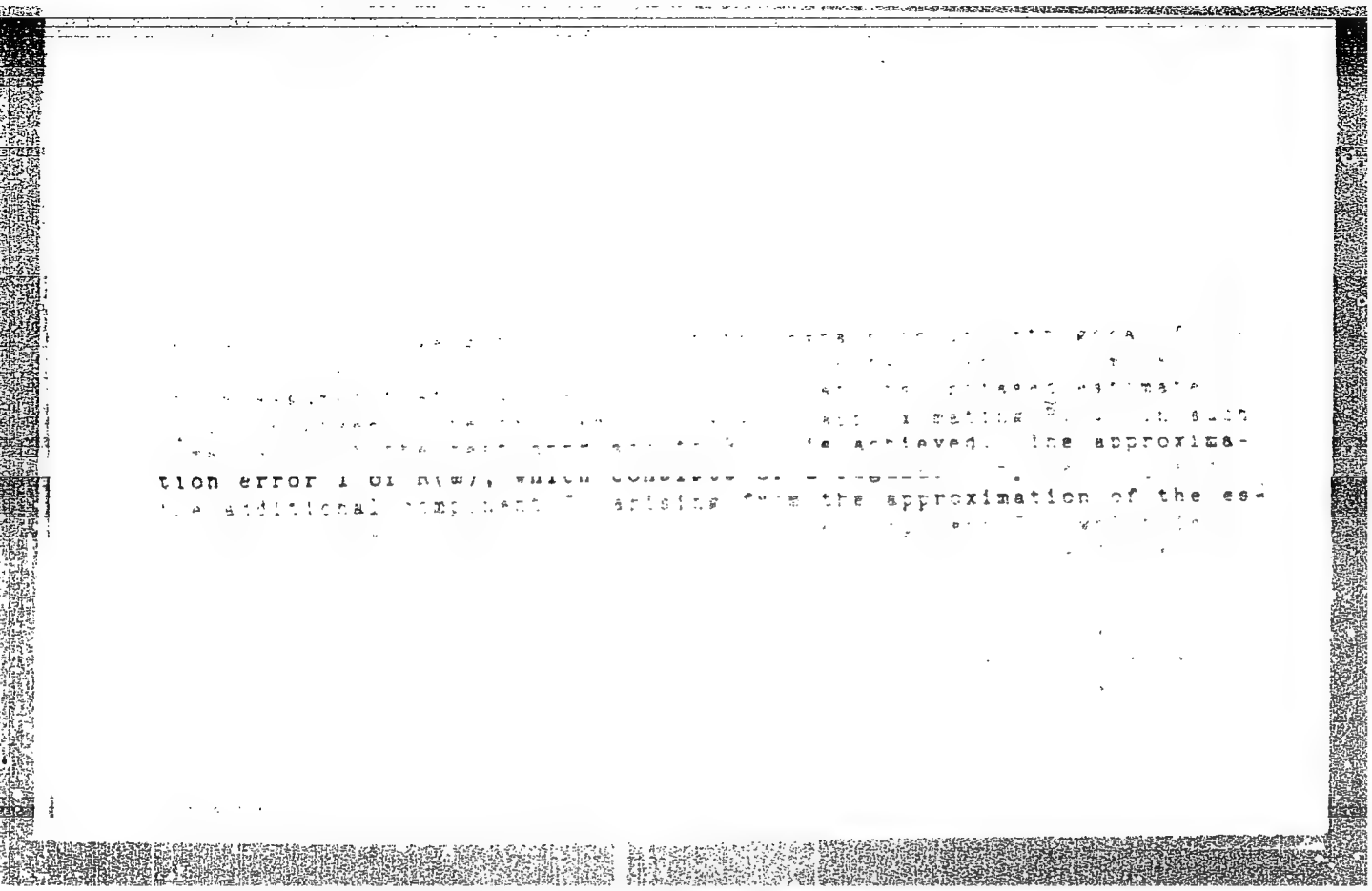
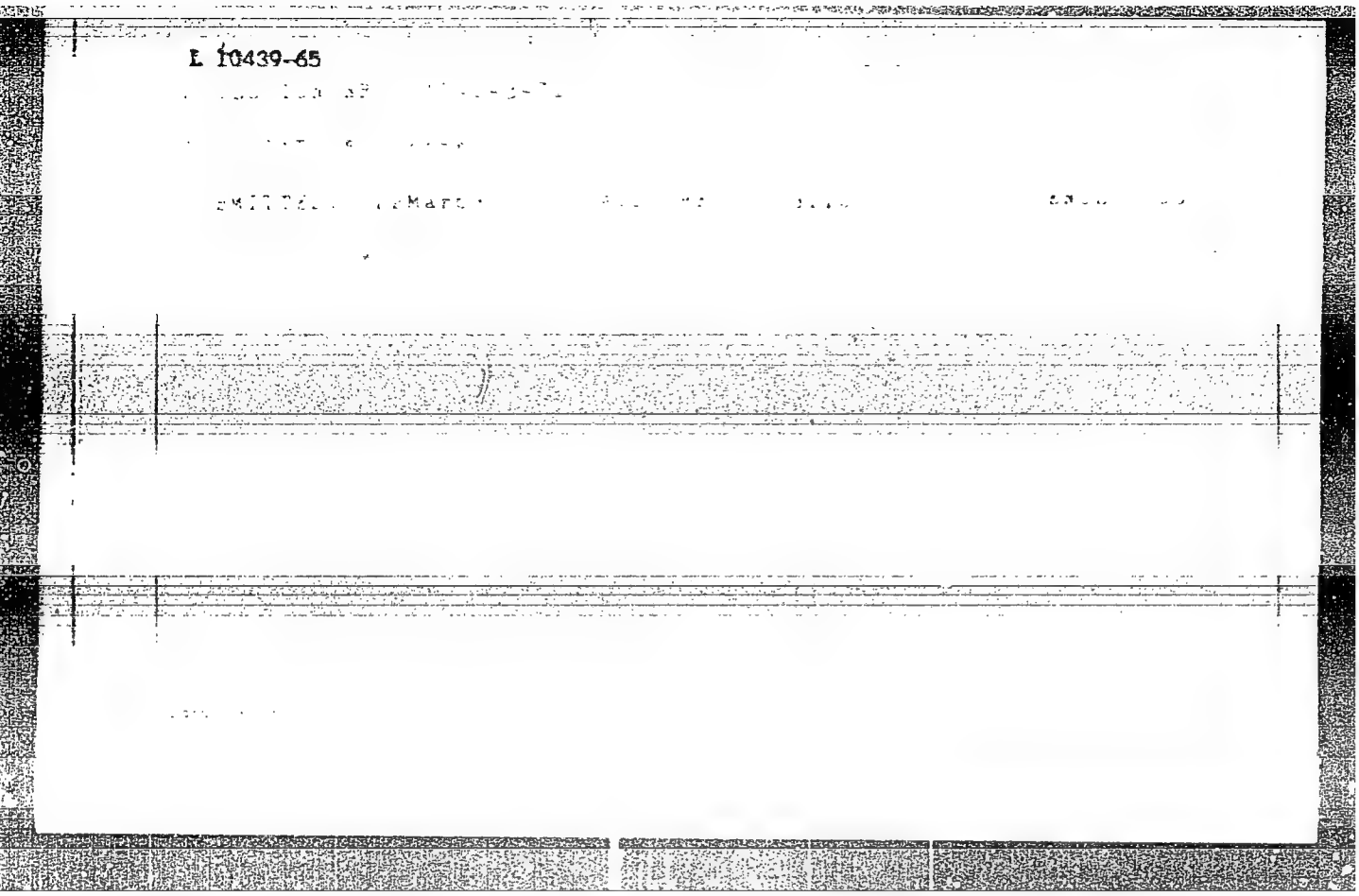




ACCESSION NR: AT4021139 S/3078/63/025/000/0018/0025

AUTHOR: Tsirlin, A. M.

TITLE: Cumulant transformation of functions

SOURCE: Moscow. Institut khimicheskogo mashinostroyeniya. Trudy*, v. 25, 1963. Kompleksnaya avtomatizatsiya khimicheskikh proizvodstv (Over-all automation in the chemical industry), 18-25

TOPIC TAGS: automation, feedback, Laplace transform, cumulant transform, Fourier transform

ABSTRACT: The author discusses the applicability of the Laplace transform to the study of dynamic systems, noting that, while quite useful, it suffers from three defects which are of some importance in the solution of certain problems: 1) the difficulty of reverse transition from representation to original; 2) the lack of graphicness, proper to complex-variable functions, and the doubling of characteristics in the frequency region when making the transition to a Fourier transform; 3) the product is less convenient than the sum. Because of the fact that it is free of the third defect, the author notes that the Laplace logarithmic transform has become widely used. However, this transform also suffers from the first two defects, a fact which complicates its use with nonminimal-phase

Card 1/2

ACCESSION NR: AT4021139

systems. The author has derived a transform which is free of all three of these shortcomings. In its discrete form, this transform coincides with Newton's formulas (K. Posse. Kurs differentsial'nogo i integral'nogo ischisleniya. M., ONTI, 1923) and Hildebrand's modification of the approximate method of Brunelli for the solution of algebraic equations. The author calls "cumulant" any transform, with which the "convolution" of the initial functions becomes the sum of the representations. The basic properties of the cumulant transform are considered and the ratio between the moments of the initial function and the moments of its representation is analyzed. A separate section of the article deals with the relation of the Laplace transform to the cumulant transformation of functions. The author claims that, with the aid of the cumulant transform, the pulse transition function of several parallel-connected identical links can be easily obtained, it being sufficient merely to find the representation of the pulse transition function of one link, multiply it by the number of links and to make a reverse transition either by means of tables of correspondence or on the basis of one of the formulas of the transform. Cumulant transformation may be used to solve equations of the convolution type. The representations of two known functions are found; on their basis (as sum or difference) the representation of the unknown function is determined and, through it, the function itself. Since the relationship between originals and representations is here somewhat more simple than in the case of the Laplace transform, the use of the cumulant transform may occasionally be more convenient. Orig. art. has: 33 formulas, 2 figures and 1 table.

Card 2/3 ASSOCIATION: Institut khimicheskogo mashinistroyeniya, Moscow (Institute of Chemical Equipment Design

ACCESSION NR: AP4011534 S/0170/64/000/001/0028/0036

AUTHOR: Tsirlin, A. M.; Sakhiyev, A. S.; Voronin, B. D.; Khodov, G. Ya.

TITLE: Study of heat transfer between the wall of a packed tube and a gas at elevated temperatures

SOURCE: Inzhenerno-fizicheskiy zhurnal, no. 1, 1964, 28-36

TOPIC TAGS: electric gas heater, gas heater, heat transfer, packed tube, convective heat transfer, radiant heat transfer

ABSTRACT: A new type of electric gas heater (see enclosure) is used to investigate the heat transfer coefficient between the wall of a packed tube and hydrogen or nitrogen under temperatures conditions not previously studied, when there is appreciable radiant heat transfer. The tubes tested were 70- and 250-mm in diameter filled with molybdenum-tin spirals 0.1-mm thick, 4-mm in diameter, and 6-mm long. The details of the gas-heater are given. The gas test temperature ranged from 270 to 750 C, that of the pipe from 700 to 1100 c, and the Reynolds numbers ranged from 11.3 to 323. Curves are plotted for the experimental date and are generalized in two formulas in terms of Nusselt numbers. Results are compared with those obtained at low temperatures and are reduced to general equations which hold for a wide range

Card 1/2

ACCESSION NR: AP4011534

of temperatures and a variety of geometrical pipe shapes. It is shown that packing increases heat transfer at high temperatures by factors of 20 to 150. The packing serves only to spoil the gas flow and thereby intensify convective heat transfer. Orig. art. has 4 figures and 13 formulas.

ASSOCIATION: none

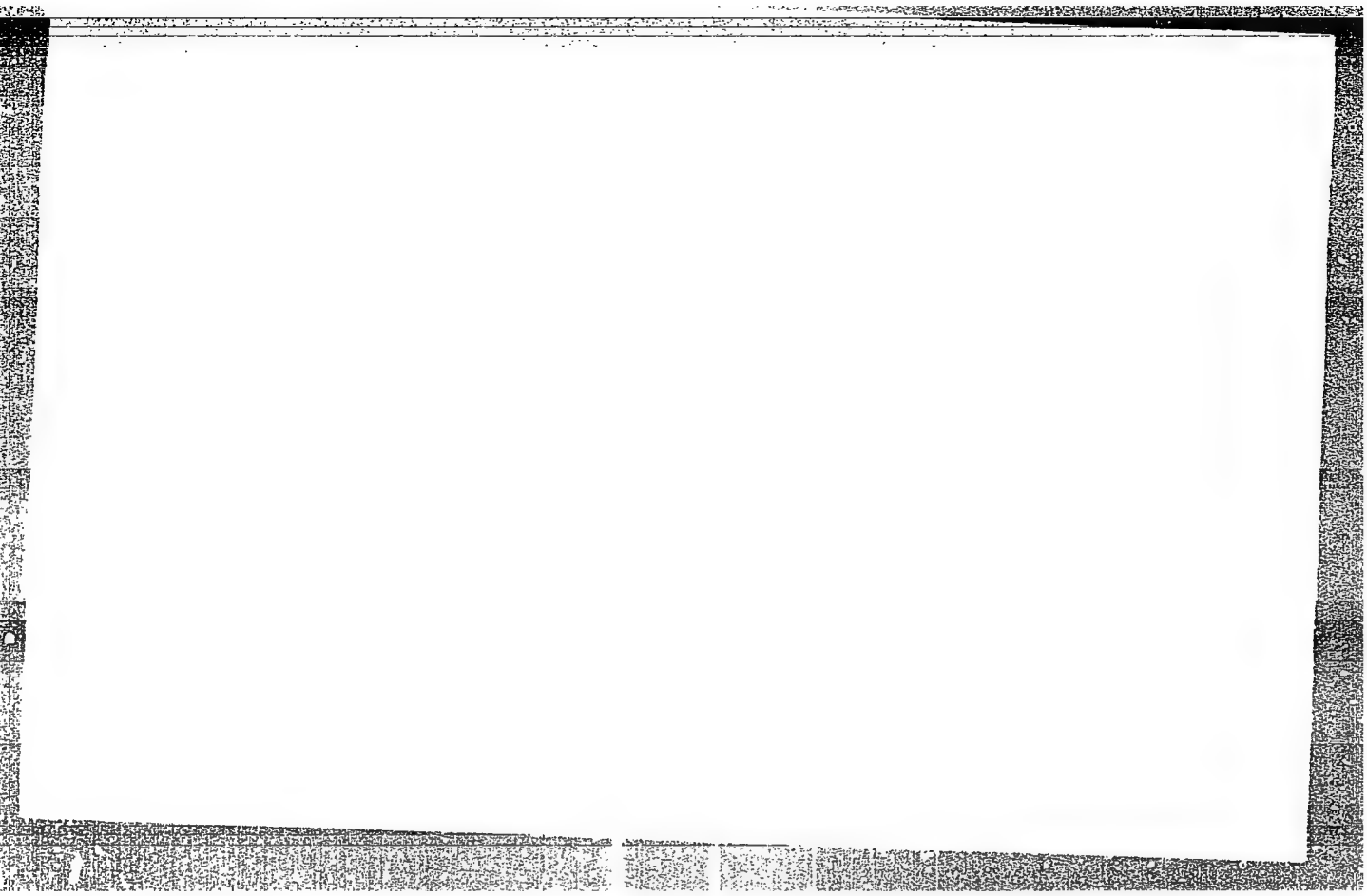
SUBMITTED: 20Mar63 DATE ACQ: 14Feb64 ENCL: 01

SUB CODE: IE, SD, AI NO REF SOV: 010 OTHER: 001

Card 2/2

TITLE: Effect of some technological factors on the yield of triethoxysilane

the proportions of the starting materials on the synthesis of triethoxysilane from $SiHCl_3$ and ethanol. The optimum conditions were a temperature of 30-32C, a 97% alcohol content (with respect to the stoichiometric amount) and a contact time of 1 minute. The reaction product was freed of HCl and distilled, producing



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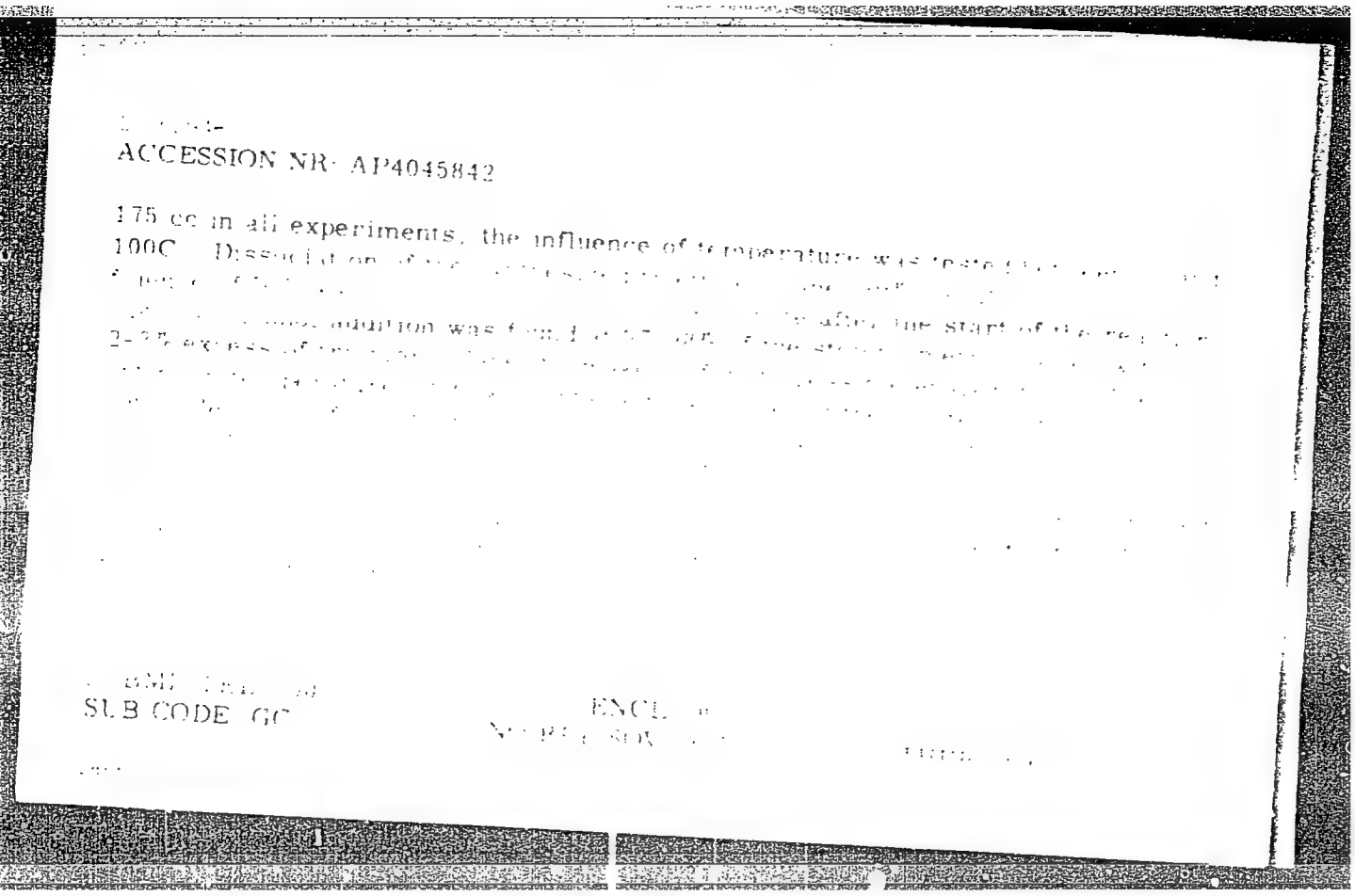
L 16294-65 EWT(m)/EPF(c) [illegible]

[illegible] 1964 659-66

TOPIC TAGS: [illegible]

ABSTRACT: In the search for higher yields (above the maximum 65%) of [illegible] compound [illegible]



ACCESSION NR: AP4045842

175 cc in all experiments, the influence of temperature was

100C. Dissolution

addition was

after the start of the

SUB CODE: GC

ENCL:

TSIRLIN, A. M.; VORONIN, B. D.; KHODOV, G. Ya.

Shaft-type resistance furnace for heating hydrogen. Biul.tekh.-ekon.inform.Gos.nauch.-issl.inst.nauch. i tekh.inform. no.10: 28-30 '62. (MIRA 15:10)

(Electric furnaces) (Hydrogen)

S/193/62/000/010/003/007
A004/A101

AUTHORS: Tsirlin, A. M., Voronin, B. D., Khodov, G. Ya.

TITLE: Shaft-type resistance furnace for hydrogen heating

PERIODICAL: Byulleten' tekhniko-ekonomicheskoy informatsii, no. 10, 1962, 28 - 30

TEXT: The new furnace for heating hydrogen up to 1,473 - 2,073°K has been developed by an organization of the Gosudarstvennyy komitet po khimii pri Sovete Ministrov SSSR (State Committee of Chemistry at the Council of Ministers USSR). The tubular graphite heater of the furnace consists of a screen and electrode connected in series to the electric network through a graphite connector. The applied technology of covering the graphite by a solid layer of silicon carbide was developed by the Vsesoyuznyy nauchno-issledovatel'skiy institut tverdykh splavov (All-Union Scientific Research Institute of Sintered Carbides) VNIITS. The authors give a detailed description of the furnace design and operation and point out that the heating element is completely relieved of the gas pressure. During operation the gas temperature at the furnace inlet and outlet and the

Card 1/2

Shaft-type resistance furnace for hydrogen heating

S/193/62/000/010/003/007
A004/A101

temperature of the heating element are measured by means of TsNIIchermet-1 tungsten-molybdenum thermocouples. The following technical data are given: voltage 10 + 40 v; power - up to 475 kw; hydrogen consumption - up to 900 nm^3/hour; working pressure - up to 6 atm; electrode service life - up to 800 hours; efficiency - up to 78%; working zone dimensions: diameter - 255 mm, length - 3,285 mm; heating element temperature - up to 2,473°K; temperature of the working gas during long-time operation 1,673 + 1,873°K. The new furnace differs from the present designs in that a combined graphite-molybdenum heater is used which ensures high temperatures, a large heat-exchange area and a satisfactory durability in respect to the gas being heated. There is 1 figure.

Card 2/2

TSIRLIN, A.M., inzh.

Sine-wave oscillator for recording frequency characteristics at ultrahigh frequencies. Energetik 8 no.7:24-26 Jl '60. (MIRA 13:8)
(Microwaves) (Oscillators, Electric)

TSIRLIN, A.M., inzh.

Using the electronic adjusting regulator as a pulse multiplier during pressure regulation in high-capacity boiler rooms.
Energetik 6 no.10:10-11 O '58. (MIRA 11:10)
(Boilers) (Pressure regulators)

16.9500

66628 69628
S/119/60/000/05/003/014
B014/B007

AUTHOR: Tsirlin, A. M., Engineer

TITLE: Approximation Method of Industrial Control Objects With Double Capacitance Aperiodic Member With Time Delay

PERIODICAL: Priborostroyeniye, 1960, Nr 5, pp 5-7 (USSR)

TEXT: For the approximation of aperiodic control objects equation (1) is given for the transmission function. This approximation is a series connection of a pure delay member and of two aperiodic members of the first kind. The methods described here permits the rapid determination of the parameters of these members. First, the determination of the high-frequency asymptote of an aperiodic double capacitance member is dealt with. Figure 1 shows the asymptotic logarithmic amplitude-frequency characteristic, and the relation (3) $T_x^2 = T_1 T_2$ (where T_1 and T_2 are the time constants of the aperiodic terms), is derived. Next, the author begins with the approximation of the object according to its startup curve, for which he gives the formula (4). From this formula τ and T_x (τ is the time of pure delay) are graphically determined with the aid of figure 2. Further, the time constants T_1 and T_2 are determined by means of figure 3 from the relation

Card 1/2

~~66028~~ 69628

Approximation Method of Industrial Control Objects With Double Capacitance Aperiodic Member With Time Delay

S/119/60/000/05/003/014
B014/B007

$\alpha = T_1/T_2$. The determination of the approximating term from the experimentally recorded phase-frequency characteristic of the object is described as more accurate. For the phase-frequency characteristic of an aperiodic member of the second kind formula (6) is given. For the determination of the time constants T_1 and T_2 the derivative (a) of formula (6) is used, and for the determination of T_x and τ the author proceeds from equation (9). After giving an example, the author finally states that for $\alpha \leq 4.5$ the divergence of the characteristics does not exceed 5 to 6%. By means of this method not only aperiodic but also neutral control objects may be approximated. There are 4 figures and 5 Soviet references.

Card 2/2

TSIRLIN, A. M. (Moskva)

Spectral density approximation by Chebyshev polynomials. Avtom. i telem. 23 no.11:1546-1552 N '62. (MIRA 15:10)

(Automatic control) (Chebyshev polynomials)
(Spectrum analysis)

S/280/63/000/001/007/016
E140/E435

AUTHOR: Tsirlin, A.M. (Moscow)

TITLE: Consideration of constraints on the distribution of roots of the characteristic equation in the synthesis of systems with minimum root-mean-square error

PERIODICAL: Akademiya nauk SSSR. Izvestiya. Otdeleniye tekhnicheskikh nauk. Tekhnicheskaya kibernetika. no.1, 1963, 79-82

TEXT: An integral equation is obtained for the optimal impulse transfer function for a filter minimizing the root-mean-square error where the roots of the characteristic equation have constraints due to stability considerations. The input and output signals are assumed to be stationary random processes defined by their statistical characteristics. There are 2 figures.

SUBMITTED: May 15, 1962

Card 1/1

S/103/63/024/003/012/015
D405/D301

AUTHORS: Klokov, Yu.L. and Tsirlin, A.M. (Moscow)

TITLE: Centering of random-process realizations by means of digital computers

PERIODICAL: Avtomatika i telemekhanika, v. 24, no. 3, 1963, 403-407

TEXT: In solving some problems of statistical dynamics the necessity arises of centering the realizations of the random process obtained from experiment. Under certain conditions (which are fulfilled in practice) the centering operation can be reduced to filtration. For this purpose discrete filters are used which do not produce phase distortions; this requirement leads to a symmetrical impulse characteristic of the filter. The appropriate filters are designed with the help of digital computers. It is possible to approximate an ideal filter by selecting the transient impulse function of the filter in the form

$$h(k) = \begin{cases} \dfrac{\sin k\,\omega_0}{k\,\omega_0} \cos \dfrac{\pi k}{2N+1} & \text{for } k \leq N, \\ 0 & \text{for } k > N, \end{cases} \qquad (5)$$

Card 1/2

where $\sin k\omega_0/k\omega$ is a cosine series expansion of the frequency characteristic of an ideal filter. In calculations which do not require an accurate knowledge of the frequency characteristic near the origin, it is convenient to use a filter with characteristic

$$h(k) = \begin{cases} \cos \frac{\pi k}{2N+1} & \text{for } k \leq N, \\ 0 & \text{for } k > N. \end{cases} \qquad (6)$$

For the synthesis of the filters (5) and (6) by digital computers it is expedient to approximate these functions by successive averaging (by a process adopted from the references). The above method of filtration involves some distortion of the statistical characteristics; this can be easily corrected by extrapolation of the frequency characteristic in the interval $[-\omega_0, \omega_0]$. There are 7 figures.

SUBMITTED: July 10, 1962

TSIRLIN, A.M.

Technical methods for the adjustment of PID controllers. Priborostroenie no.3:1-4 Mr '63. (MIRA 16:6)

(Electronic instruments)

L 23018-66

ACC NR: AP6010030 SOURCE CODE: UR/0170/66/010/003/0287/0293

AUTHOR: Voronin, B. D.; Tsirlin, A. M.; Smelyanskiy, M. Ya. 83 B

ORG: none

TITLE: Calculation of gas-dynamic factors in designing electric arc heaters with a vortex gas-stabilization arc

SOURCE: Inzhenerno-fizicheskiy zhurnal, v. 10, no. 3, 1966, 287-293

TOPIC TAGS: gas dynamics, electric arc, gas flow, electric property, heat radiation, vortex flow, thermal stability

ABSTRACT: Experiments have been carried out on stabilization of an arc by a vortex gas flow in an electric hydrogen heater. Boundaries of stable operation of the apparatus were found. Investigations of gas dynamics reveal an explicit similarity between the dependence of the limiting current and the tangential velocity in the electrode channel on the gas flow rate. The quantitative relation was found experimentally between the controlling parameters of the heater to express the gas-dynamic conditions of the arc stabilization at the boundary of the steady operation region. Many equations are presented for the calculation of electrical parameters and characteristic dimensions (the anode diameter) which provide a good stabilization of

Card 1/2 UDC: 533.6

L 23018-66

ACC NR: AP6010030

the arc and the required heat generation for a particular type of electrical heater. Orig. art. has: 4 figures, 8 formulas, and 1 table. [Based on author's abstract] [NT]

SUB CODE: 20/ SUBM DATE: 01Jun65/ ORIG REF: 005/
OTH REF: 001/

Card 2/2

AKHUNDOVA, A.M., kand. med. nauk; TSIRKINA, A.S.

Determination of qualitative forms of hemoglobin in thalassemia. Pediatriia 41 no.10:64-69 O '62. (MIRA 17:2)

1. Iz Azerbaydzhanskogo nauchno-issledovatel'skogo instituta gematologii i perelivaniya krovi (dir. -- dotsent G.A. Guseynov) i TSentral'nogo instituta usovershenstvovaniya vrachey (dir. - dotsent M.D. Kovrigina).

TSIRLIN, A.M. (Moskva)

Cumulative conversion and features of its use in the study of dynamic systems. Izv. AN SSSR. Tekh. kib. no.6:93-100 N-D '63. (MIRA 17:4)

TSIRLIN, A.M. (Moskva)

Consideration of limitations on the distribution of the roots of a characteristic equation in the design of a system with minimum r.m.s. error consideration. Izv. AN SSSR. Otd. tekh. nauk. Tekh. kib. no.1:79-82 Ja-F '63. (MIRA 16:7)

(Automatic control)

TSIRLIN, A.M.

Mixer for cooling hot gases contaminated with solid products.
Khim. prom. no.5:349-351 My '64. (MIRA 17:9)

TSIRLIN, A.M. (Moskva)

Determination of the spectral density of random processes as a problem of function approximation according to its evaluation. Avtom. i telem. 25 no.8:1191-1197 Ag '64. (MIRA 17:10)

TSIRLIN, B., inzhener; SHNYAGIN, Yu.; VOL'SKAYA, L., inzhener.

Testing temperature control valves. Khol.tekh.33 no.1:16-21 Ja-Mr '56. (MIRA 9:7)
(Refrigeration and refrigerating machinery--Testing)

TSIRLIN, Boris Khatskelevich; MIL'DVARF, M.D., inzh., retsenzent; SHARIKOV, Ye.N., inzh., retsenzent; PREDE, V.Yu., inzh., red.; VOROTNIKOVA, L.F., tekhn. red.

[Experiment in increasing the traffic capacity; from practices of the Stalinogorsk Division of the Moscow Railroad] Opyt usileniia propusknoi sposobnosti; iz praktiki Stalinogorskogo otdeleniia Moskovskoi dorogi. Moskva, Vses.izdatel'sko-poligr. ob"edinenie M-va putei soobshcheniia, 1961. 19 p. (MIRA 15:1)

(Railroads—Management)

TSIRLIN, B.M., inzh.; GONCHAROV, I.A., inzh.; KOVAL'CHUK, Ye.I., inzh.

Use of graphite-grog and graphite paddings and inserts for the casting of killed steel. Stal' 22 no.4:315-316 Ap '62. (MIRA 15:5)

1. Metallurgicheskiy zavod "Zaporozhstal'".
(Steel ingots) (Refractory materials)

AUTHOR: TSIRLIN,B.M. PA - 2417

TITLE: Modernization of Certain Units of the Slabing Mill Equipment. (Rekonstruktsiya otdel'nykh uzlov oborudovaniya slabinga, Russian)

PERIODICAL: Stal', 1957, Vol 17, Nr 3, pp 232 - 238 (U.S.S.R.)
Received: 5 / 1957 Reviewed: 5 / 1957

ABSTRACT: The first slabing mill of the U.S.S.R. started operation in the "Zaporozhstal'" works in 1937. It is a two-high reversing rolling mill with horizontal rolls of a diameter of 1100 mm and a body length of 2000 mm as well as with vertical front rolls of a diameter of 680 mm and a body length of 1200 mm. Each horizontal roll has its own 5000 HP motor, the vertical rolls, however, have one 2500 HP motor together. The upper roll can be raised 900 mm. The roller trains have two motors of 150 HP each. All roller trains have roller bearings. The shears are adapted for pressures up to 2000 t and have four motors of 245 HP each. There are eight groups of soaking pits. The weight of one ingot is up to 15 t. The reconstruction of the roller train rollers was carried out 1954 - 55. Axial self-aligning roller bearings were built in to the driving part of the roller trains. Bearing supports of the line shafts were improved. Between the frame and the bearing support wedges were driven in on both sides and welded on to the frame.

APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001757110019-9"

PA - 2417

Modernization of Certain Units of the Slabing Mill Equipment.

On the occasion of the general overhaul the transmission of the roller train was separated into two sections. The rolls of the roller trains used for delivery were replaced by rolls with ribbed bodies. Hydraulic removal of scale under the delivering roller trains was introduced in 1954 and that of the feeding roller trains before the shears in 1955. The removal of scrap and scale from the roll stands and the roll trains was mechanized in 1955. The vertical rolls had bearings with Textolite-bushings as early as 1937. Also the horizontal rolls were equipped with same in 1953, and in 1955 the sets of bushings were replaced by those pressed from one piece. As a result of these measures production rose by 32 % and the waiting periods decreased 1 1/2 fold. (9 illustrations)

ASSOCIATION: "Zaporozhstal'" works
PRESENTED BY:
SUBMITTED:
AVAILABLE: Library of Congress.

Card 2/2

TSIRLIN, B.M., inzhener; KSENZUK, F.A., inzhener.

Heating and rolling large stainless steel ingots. Stal' 16 no.2: 140-143 F '56. (MLRA 9:5)

1. Zavod "Zaporozhstal'".
(Steel, Stainless) (Rolling (Metalwork))

TSIRLIN, B.M.; SHEVCHENKO, B.L.

Increasing the temperature of hot ingot deliveries to the soaking pit is an important potential for an increased blooming mill productivity. Metallurg no.3:37-39 Mr '56. (MLRA 9:9)

1. Zamestitel' nachal'nika tsekha slabing (for TSirlin) 2. Starshiy master slabinga (for Shevchenko) 3. Zavod "Zaporozhstal'."
(Rolling (Metalwork))

TSIRLIN, B.M., inzh.

Effect of the shape of the top part of ingots on the number of defects in their bottom part. Stal' 21 no.10:900-901 O '61. (MIRA 14:10)

1. Zavod "Zaporozhstal'".
(Steel ingots--Defects)

S/133/61/000/012/001/006
A054/A127

AUTHORS: Soroko, L.N.; Filonov, V.A.; Ksenzuk, F.A.; Tsirlin, B.M.; Pavlishchev, V.B.; - Engineers

TITLE: Test rolling of stainless steel slabs on the "1200" mill with reelers in the furnace

PERIODICAL: Stal', no. 12, 1961, 1,092 - 1,096

TEXT: The possibility and the advantages of hot rolling stainless steel slabs with double-phase structure on the "1200" reversing mill of the Novolipetsk Plant were studied. The quality of surface and edges and the thickness differences (longitudinally and laterally) of the stainless steel slabs were compared for the "1200" mill and a hot-rolling continuous sheet mill. 22 slabs made of three heats of 1X18H9T (1Kh18N9T) and 2 steel grades of austenite-ferrite structure (A, 18 and B, 6 slabs), totalling 82 tons were rolled during the tests. The slabs were heated in a pusher-type furnace, fuelled by blast-furnace gas. The required heating time was originally fixed at 2 h 40 min, but actually this period varied within wide limits, due to delays in rolling the strip on the finishing stand. The required rolling temperature and heating quality could be en-

Card 1/3

Test rolling of stainless steel slabs on....

sured in the pusher-type furnace. When rolling on the roughing stand with 5 passes, the load on the motor increased, sometimes exceeding the maximum load rolling carbon steel slabs 1,000 - 1,500 amp. Further tests were carried out with 7 passes which yielded satisfactory rolling results of the test slabs on the roughing stand. On the finishing stand the load on the main motor did not exceed the limit, as a rule, only the value of the RMS current was some - what higher, reducing the rolling speed. It was found that some parts of the finishing stand are unsuitable for rolling stainless steel at a temperature at the rolling end of 900 - 920°C. The capacity of the drums is insufficient to coil up strips at a reduced temperature with a non-uniform thickness (up to 13 mm). The guides, the motor, the ball-bearings (with liquid friction) should also be adapted to the set conditions when rolling stainless steel instead of carbon steel. Another drawback of the process tested is that the strip ends, remaining outside the furnace, cool down quickly and this results in differences in strip-thickness, mainly over the strip lengths. On one sector 7 - 10 m long at the end of the strip the maximum deviations in thickness amount to 0.29 - 0.66 mm (at a rated thickness of the test strip of 3 mm), while these deviations amount only to 0.07 - 0.20 when rolling the same strips on the continuous mill. The thickness differences over the strip cross section are about the same as on

S/133/61/000/012/001/006
A054/A127

Test rolling of stainless steel slabs on ....

the continuous mill (0.05 - 0.19 mm and 0.07 - 0.17 mm, respectively). Due to the considerable fluctuations in thickness and temperature along the strip it is not reduced uniformly over its entire length and this results in waviness and warping. It was possible to eliminate these defects at the expense of the rolling speed, and, therefore, of the output. The quality of theedges and the surface was better for strips rolled on the "1200" reversing mill with the coils heated in the furnace. There were no cracks at the edges and surface defects of mechanical origin (scratches, grooves) were fewer than in the conventional strips. Hydraulic scale removal was not applied as it was feared to reduce the temperature of the strip ends. Due to this, however, the mill scale on the strip was rolled into the surface and, therefore, it was found more expedient not to use this measure. There are 3 tables.

ASSOCIATION: Zavod "Zaporozhstal'" ("Zaporozhstal'" Plant)

Card 3/3

SOROKO, L.N., inzh.; FILONOV, V.A., inzh.; KSENZUK, F.A., inzh.; TSIRLIN, B.M., inzh.; PAVLISHCHEV, V.B., inzh. Prinimali uchastiye: BABAKOV, A.A.; BOROVSKIY, V.V.; YASHCHENKO, B.V.; LAZUTIN, A.G.; ZAVERYUKHA, A.Kh.; FRANTSENYUK, I.V.; ORLOVA, T.K.

Experimental rolling of stainless steel slabs on a 1200 mill with coilers in the furnace. Stal' 21 no.12:1092-1096 D '61. (MIRA 14:12)

1. Zavod "Zaporozhstal'" (for Soroko, Filonov, Ksenzuk, TSirlin, Pavlishchev).
(Rolling mills—Equipment and supplies)
(Steel, Stainless)

GLADKIY, M.I.; TSIRLIN, D.B.; BRONSHTEYN, L.A., redaktor, kandidat tekhnicheskikh nauk; PAPINAKO, I.G., redaktorp MOROZOVA, T.M. tekhnicheskiy redaktor.

[Operation and planning of automobile transportation within the communications system] Eksploatatsiia i planirovanie avtomobil'nogo transporta v khoziaistve sviazi. Pod red. L.A.Bronshteina. Moskva, Gos.izd-vo lit-ry po voprosam sviazi i radio, 1951. 198 p. (MLRA 8:11)
(Transportation,Automotive) (Communication and traffic)

SOURCE:

TOPIC TAGS: microdrive, micromotor, dc micromotor

ABSTRACT: The development of new dc microdrives

synchronizing it with an independent

Card 1/2

ACCESSION NR

the development.

ASSOCIATION

SUBMITTED: 00 ENCL: 00 SUB CODE: EE

NO REF SOV: 002 OTHER:

ROMANOV, Ye., inzh.; TSIRLIN, I., inzh.

Grain releasing system for loading railroad cars through the upper hatches. Muk.-elev. prom. 27 no.9:18-20 S '61. (MIRA 15:2)

1. Gosudarstvennyy institut po proyektirovaniyu predpriyatiy mukomol'no-krupyanoy i kombikormovoy promyshlennosti i elevatornoskladskogo khozyaystva.
(Grain elevators)
(Grain--Transportation)

TSIRLIN, I.

Close to the cherished goal. Pozh.delo 7 no.6:14 Je '61. (MIRA 14:6)

(Cheliabinsk--Fire departments)

L 4173-66 EWT(d)/EWT(m)/EWA(d)/EWP(v)/EWP(t)/EWP(k)/EWP(h)/EWP(z)/EWP(b)/
ACC NR: AP5025694 EWP(1) JD SOURCE CODE: UR/0286/65/000/018/0041/0041

INVENTOR: Bol'shakov, K. A.; Bul'yenkov, N. A.; Rastorguyev, L. N.; Tsirlin, M. S.

ORG: none

TITLE: Material for the positive arm of a thermocouple. Class 21, No. 174679

SOURCE: Byulleten' izobreteniy i tovarnykh znakov, no. 18, 1965, 41

TOPIC TAGS: thermocouple, high temperature material

ABSTRACT: The proposed material is intended to improve thermocouple operation in the region of high temperatures. It is prepared from a solid solution of Mg_3Sb_2-Mg_2Si.

SUB CODE: IE,MM/SUBM DATE: 13Mar62/ ORIG REF: 000/ OTH REF: 000/ ATD PRESS: 4129 [DW]

Card 1/1 Mid

UDC: 621.362.1

BOL'SHAKOV, K.A.; BUL'ONKOV, N.A.; TSIRLIN, M.S.

New polymorphic conversion of Mg_3Sb_2. Zhur.neorg.khim. 7 no.9:2271-2272 S '62. (MIRA 15:9)
(Magnesium antimonide) (Polymorphism)

Solid solutions of Mg_3Sb_2 with Mg_2Si and Mg_2Sn. K. A. Bol'shakov, P. A. Bul'onkov, L. N. Rastorguyev, M. S. Tsirlin.

Report presented at the 3rd National Conference on Semiconductor Compounds, Kishinev, 16-21 Sept 1963

BOL'SHAKOV, K.A.; BUL'ONKOV, N.A.; RASTORGUYEV, L.N.; TSIRLIN, M.S.

System $Mg_2Si - Mg_3Sb_2$. Zhur. neorg. khim. 8 no.12:2705-2709 D '63. (MIRA 17:9)

PEREVERZEV-ORLOV, V.; TSIRLIN, V.

Radio receivers with miniature earphones. Radio no.5:47-48 My '60. (MIRA 13:12)
(Transistor radios)

GARMASH, V.A. (Moskva); PEREVERZEV-ORLOV, V.S. (Moskva); TSIRLIN, V.M. (Moskva)

Follow-up scanning system. Izv.AN SSSR. Otd. tekh. nauk Energ. i avtom no.1:166-170 Ja-F '61. (MIRA 14:3)
(Reading machines)
(Cybernetics)

TSIRLINA, D.L., prof.; LEGKOPUDOVA, A.I.

Electrolytic burns in miners in the Karaganda coal basin. Khirurgiia 35 no.7:30-33 Jl '59. (MIRA 12:12)

1. Iz kliniki obshchey khirurgii (zav. - prof. D.L. TSirlina) Karagandinskogo meditsinskogo instituta (dir. - dots. P.M. Pospelov).
(BURNS, etiology)

TSIRLINA, R. N., Cand of Chem Sci — (diss) "The Coversion of Certain Hydrocarbons in thePrcsence of an Oxidated Alumino-molybdic Catalyzer under Conditions of High Temperatures and Pressures of Hydrogen," Moscow, 1959, 19 pp (Institute of Fuels, Acad Sci USSR) (KL, 4-60, 115)

TSIRLINA, R.N.

Transformations of isooctane and cetane during destructive hydrogenation in the presence of an aluminum oxide-molybdenum oxide catalyst. Trudy IGI 9:129-138 '59. (MIRA 13:1)
(Paraffins) (Hydrogenation)

TSIRLINA, R.N.

Transformations of ethyl cyclohexane and ethyl benzene during destructive hydrogenation in the presence of an aluminum oxide-molybdenum oxide catalyst. Trudy IGI 9:139-147 '59.
(MIRA 13:1)

(Hydrocarbons) (Hydrogenation)

5.3400

Y1530
SOV/[illegible]

AUTHORS: Lozovoy, A. V., Tsirlina, R. N.

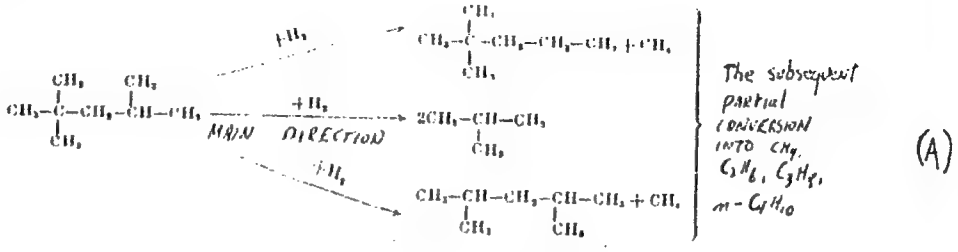
TITLE: Conversion of Some Hydrocarbons on Hydrogenation in the Presence of Alumina-Molybdena Catalyst

PERIODICAL: Zhurnal prikladnoy khimii, 1960, Vol 33, No 1, pp 216-222 (USSR)

ABSTRACT: The chemistry of conversions of 2,2,4-trimethylpentane a mixture of C_{12}-C_{14} n-paraffins, ethylcyclohexane, ethylbenzene, tetralin, decalin, by destructive hydrogenation at 75-300 atm and at 510° in the presence of MoO_3+Al_2O_3 was investigated for the first time. The character of destruction in all cases depends on hydrogen concentration. The conversion of 2,2,4-trimethylpentane under above conditions is given by (A). (Hydrogen - 0.9-0.7 l/ml hour.) The conversion of ethylbenzene and ethylcyclohexane is shown in (B).

Card 1/5

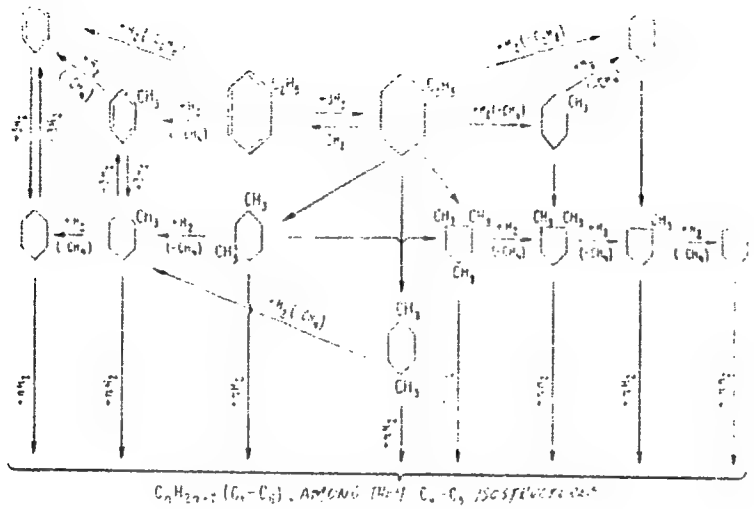
Conversion of Some Hydrocarbons on
Hydrogenation in the Presence of Alumina-
Molybdena Catalyst

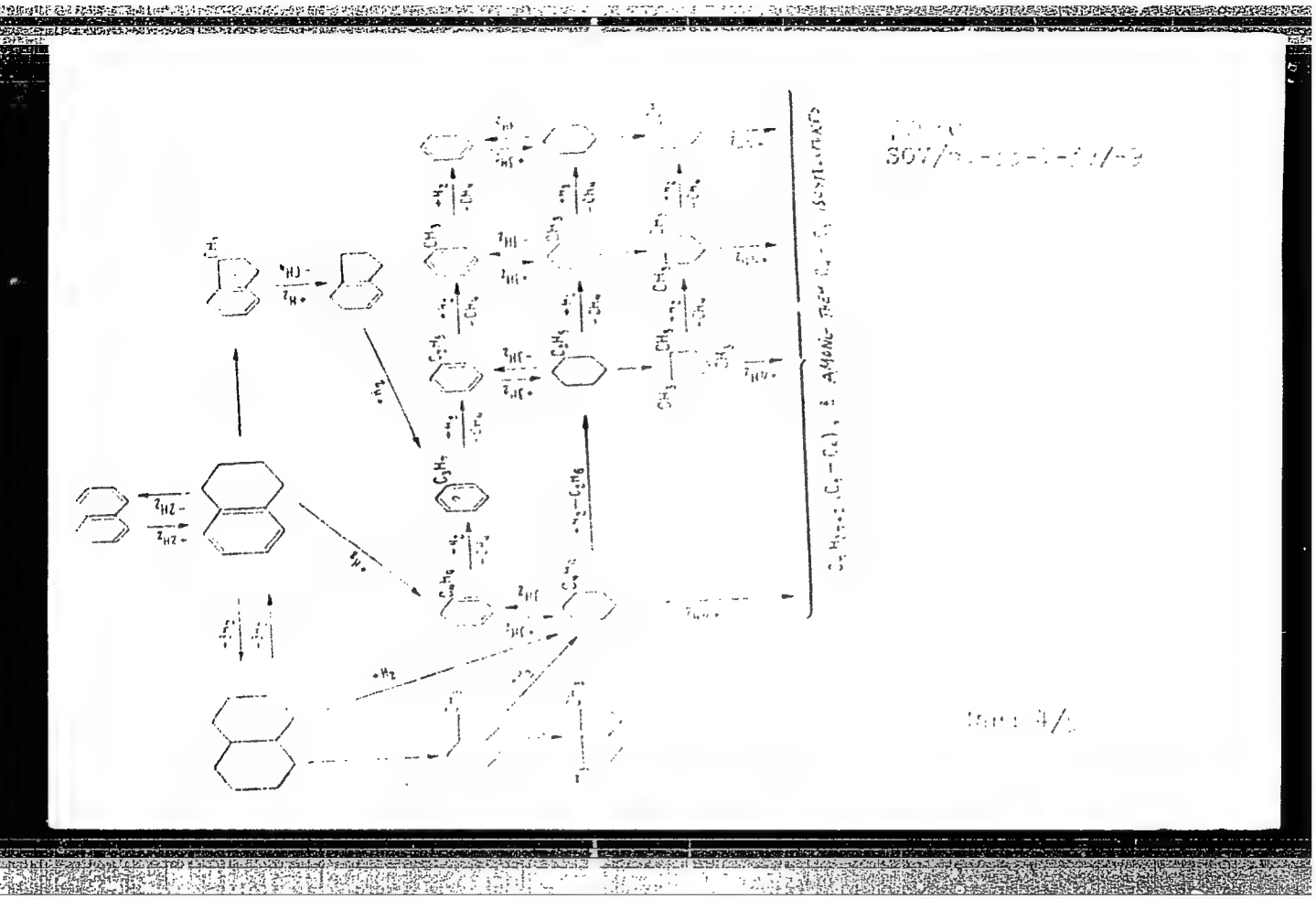


(A)

(Hydrogen = 0.9 g/ml hour.) The conversion of decalin and tetralin is shown in (C). (Hydrogen = 0.9 g/ml hour.) The degree of conversion at 300 atm is of the following order: tetralin > C_{13}-C_{17}-n-paraffins > Isooctane > ethylbenzene > ethylcyclohexane > decalin; at 75 atm: C_{13}-C_{17}-n-paraffins > Isooctane > tetralin > ethylcyclohexane > decalin > ethylbenzene. There are 3 tables; and 10 references, 4 Soviet, 2 US, 2 UK, 1 Japanese, 1 French. The 4 U. S. and U. K. references are: Hall, Fuel, 13, 79-93 (1934); V. N. Ipat'yev, J. Am. Chem. Soc., 55, 3096 (1933); H. Slotboom,

Card 2/5





Conversion of Some Hydrocarbons on Hydrogenation In the Presence of Alumina-Molybdena Catalyst. (SOV/[illegible])

Petroleum, [illegible]; C. Cooley, Fuel [illegible]; [illegible]

ASSOCIATION: Institute of Fossil Fuels, Academy of Sciences, USSR (Institut goryuchikh iskopaemykh AN SSSR)

SUBMITTED: December [illegible], 1958

Card 5/5

TSIRLIN, V. [TSyrlin, V.]; SEREBRENIKOV, A. [Serebrenykov, A.]

Wonders of motion pictures. Znan. ta pratsia no. 4:21-22 Ap '61.
(MIRA 14:5)
(Kiev—Motion picture industry)

S/024/60/000/03/025/028
E140/E463

AUTHORS: Garmash, V.A., Pereverzev-Orlov, V.S. and Tsirlin, V.M. (Moscow)

TITLE: On a Quasi-Topological Method of Character Recognition

PERIODICAL: Izvestiya Akademii nauk SSSR, Otdeleniye tekhnicheskikh nauk, Energetika i avtomatika, 1960, Nr 3, pp 180-182 (USSR)

ABSTRACT: Alphabetical and numerical characters may be coded by tracing their outlines and determining their topological features. In the present communication only the external outline is traced (the article concerns the Russian alphabet but an example in the Latin alphabet where this assumption would be significant would be the letter Q where the part of the tail inside the body of letter would be omitted). The coding consists of noting the number of branches emerging from each node (in the letter I there are 2 nodes with one branch each, in the letter A there are 4 nodes with 1, 3, 3, 1 branches respectively (neglecting serifs)). Depending on the node at which the scanning procedure is commenced, the code obtained will have a cyclical permutation. Further, several letters may have the same code, eg T and Y.

Card 1/2

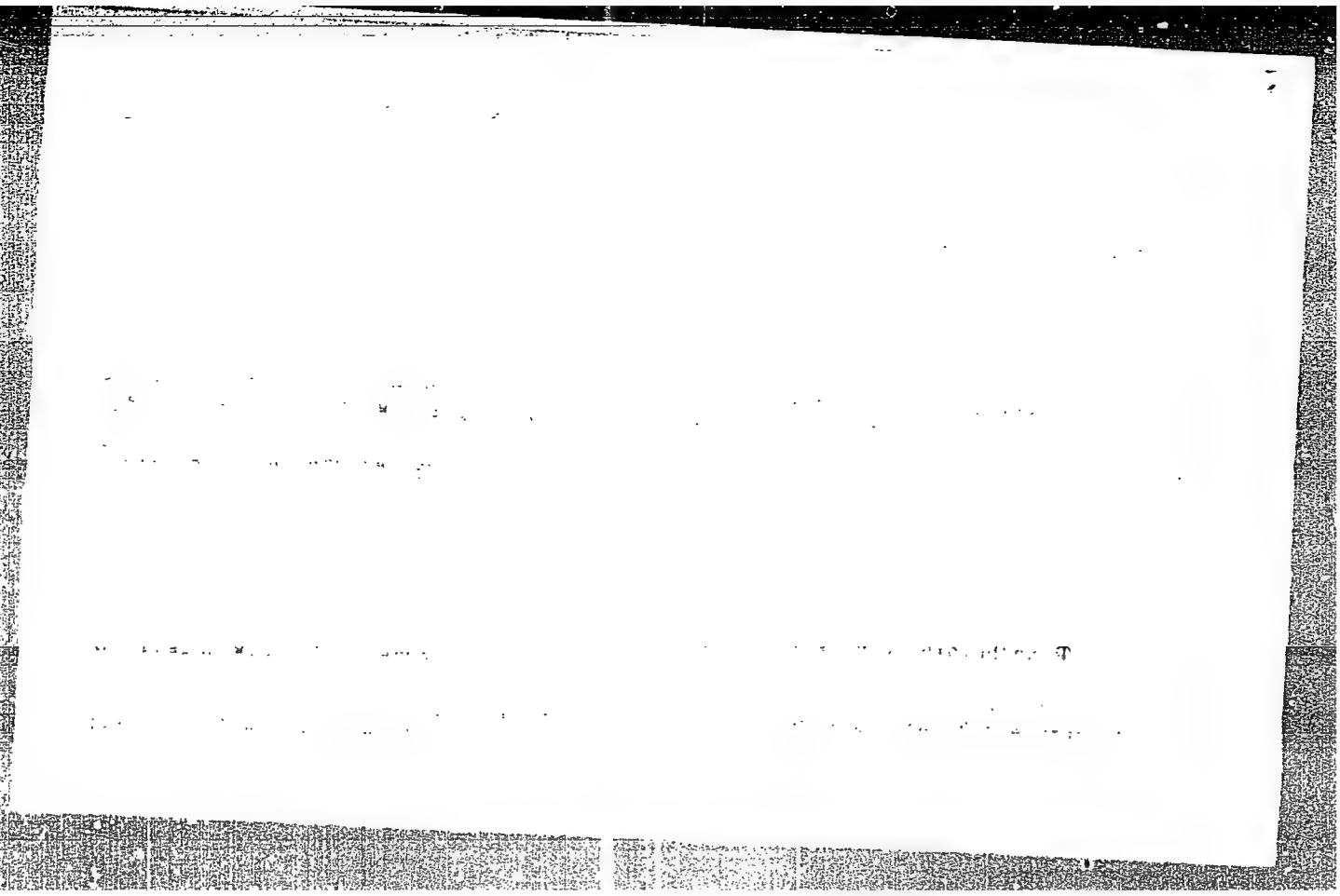
S/024/60/000/03/025/028
E140/E463

On a Quasi-Topological Method of Character Recognition

However, assuming the characters to be distributed as in a normal printed page, starting the scan at the same relative position in each character, the number of characters with identical codes is reduced because the cyclical permutations are ignored and a single code is obtained for each letter. However, neglecting the cyclical permutations is the reason why this procedure is called quasi-topological rather than topological. There are 2 figures, 2 tables and 5 references, 3 of which are English, 1 German and 1 Soviet.

SUBMITTED: January 6, 1960

Card 2/2



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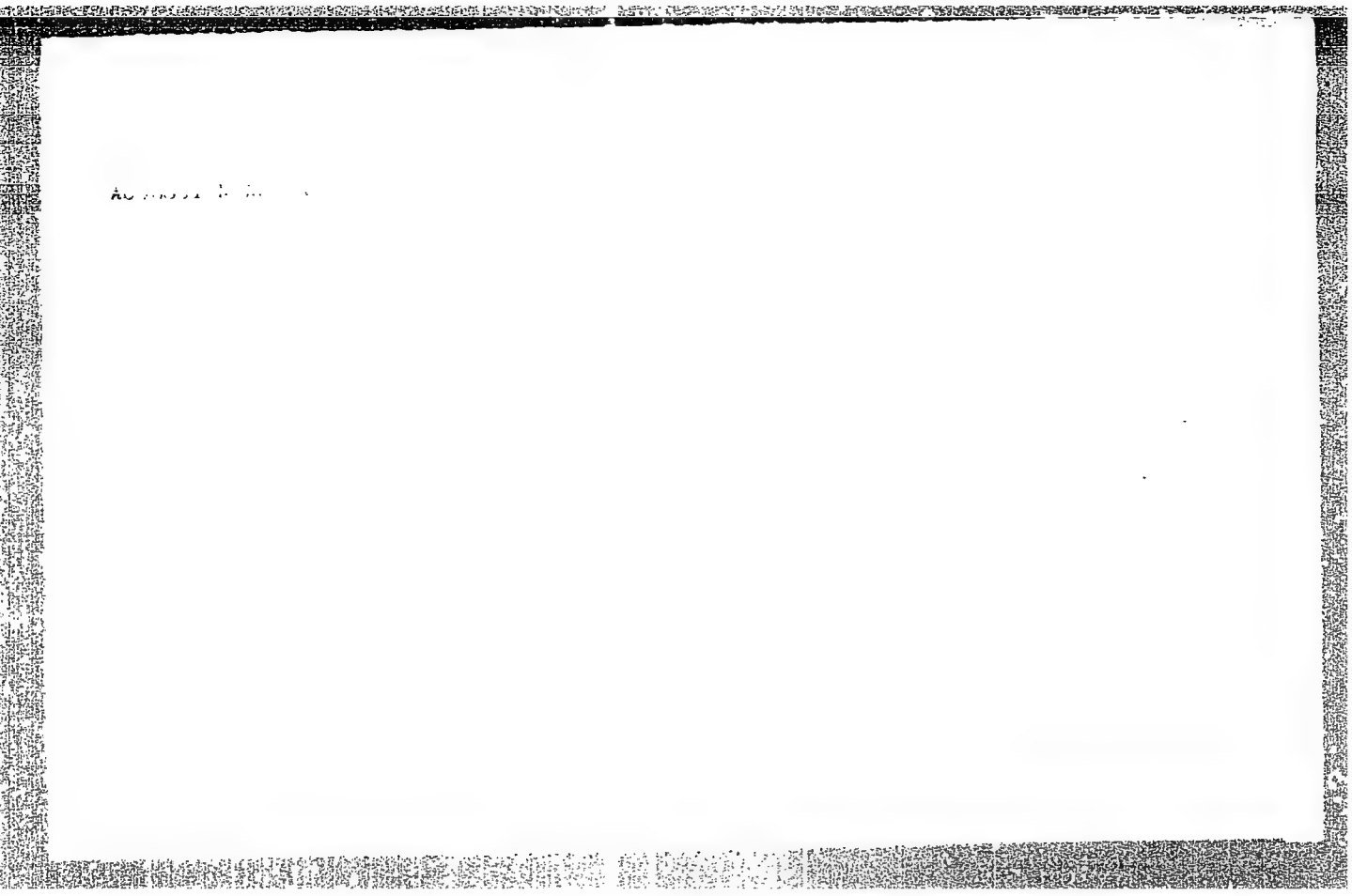

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6.6000

25757
S/024/61/000/001/011/014
E035/E117

AUTHORS: Garmash, V.A., Pereverzev-Orlov, V.S., and Tsirlin, V.M. (Moscow)

TITLE: A Device for Scanning the Edges of Patterns

PERIODICAL: Izvestiya Akademii nauk SSSR, Otdeleniye tekhnicheskikh nauk, Energetika i avtomatika, 1961, No.1, pp. 166-170

TEXT: The logic of many pattern recognition systems uses information about the edge of a pattern. Although this information can be derived from a systematic scan in two perpendicular directions, it is much more convenient to obtain it from a device which scans the edge of the pattern directly. The two main problems which arise in a scanner of this kind are: 1) the problem of assuring that the position of the scanning spot on the border of the pattern is stable; and 2) the problem of making the spot follow the border in a predetermined direction. These two problems can theoretically be solved as follows. The spot is caused to move in a small circle, which intersects the border of the pattern. Each time that the spot crosses the border - say from white to black, the centre of the small scanning circle is

Card 1/ 5

A Device for Scanning the Edges of Patterns

moved to the point where the intersection occurred. This will ensure that the scanning spot will follow the border in a predetermined direction and never move away from it. A block diagram of a system designed to carry out this type of scanning is shown in Fig.2. A sine-wave generator 1 drives a phase splitter 3 through a delay network 2. The phase splitter has two outputs with a 90° phase difference, which are eventually used to produce the small scanning circle. The sine-wave generator also drives another phase splitter 4, which is similar to 3. The outputs from 4 are gated by two 'end gates' 5 and 6, and drive two integrators 7 and 8. The outputs of these two integrators are used to control the position of the spot on the screen of the scanning tube 11 through two amplifiers 9 and 10. A real image of the scanning tube screen is formed on the pattern being scanned, and a photomultiplier 12 is actuated by reflected light from this pattern. The output signal is amplified by a video-amplifier 13, and is supplied to a differentiator and pulse shaper 14. The output of 14 is a

25757
S/024/61/000/001/011/014
E035/E117

A Device for Scanning the Edges of Patterns

short rectangular pulse, which occurs whever the scanning spot passes from white to black. It is used to gate the instantaneous values of the basic driving waveforms to the integrators 7 and 8. The monitoring tube 15 is driven by the circuits in blocks 16 to 21, which operate in a very similar way to the ones which are used to drive the scanning tube. A variable delay 22 is introduced to allow the image on tube 15 to be rotated. The size of the scanning circle is controlled by two amplifiers 23 and 24. These amplifiers have a variable gain which is controlled by 25. The device uses mostly conventional tube circuitry. Two transistors are used in each of the gates. The scanner was tested with a basic frequency of 10 kc/s, a spot diameter of 0.4 mm and a scanning circle diameter of 1.5 mm, and a unit shift of the scanning circle of 0.5 mm. This led to a following speed of about 5 metres/sec. The scanner was well able to follow shapes substantially larger than the scanning circle. Shapes smaller than the scanning circle were detected as 'dots', the scanning circle positioning itself around them. The scan

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S/024/61/000/001/011/014
E035/E117

A Device for Scanning the Edges of Patterns

followed the dots when they were moved. The scanner was originally designed for use with a quasi-topological device for reading Russian letters; but it could also be useful in a number of other fields, notably those of measuring geometrical drawings and the transmission of pictures.

Acknowledgements are made to A.A. Kharkevich for his interest in the work.

There are 5 figures and 6 references: 1 Soviet and 5 English.

SUBMITTED: May 27, 1960

Card 4/5

TSIRLIN, V. Yu.
N.A. DOBROTIN, DAN 65, No 4, 1949, 473-6

TSIRLIN, Yu.A.; MUROMTSEVA, G.S.; SMIRNOVA, V.A.

Continuous neutralization of vapors from the spontaneous evaporation of wood hydrolyzates. Gidroliz.i lesokhim.prom. 12 no.8:10-11 '59. (MIRA 13:4)

1. Nauchno-issledovatel'skiy institut gidroliznoy sul'fitno-spirtovoy promyshlennosti.
(Wood distillation)

Subject : USSR/Chemistry AID - P-92

Card : 1/1

Authors : Andreyev, K. P., and Tsirlin, Yu. A.

Title : Study of compositions of liquid-vapor equilibrium phases in the system furfural-methanol-water

Periodical : Zhur. Prikl. Khim. 27, no. 4, 402-412, 1954

Abstract : The system methanol-furfural-water may be considered as a binary system consisting of methanol and water-furfural. Five references (four U.S.S.R.): 1929-1951. Six tables; 5 graphs.

Institution : None

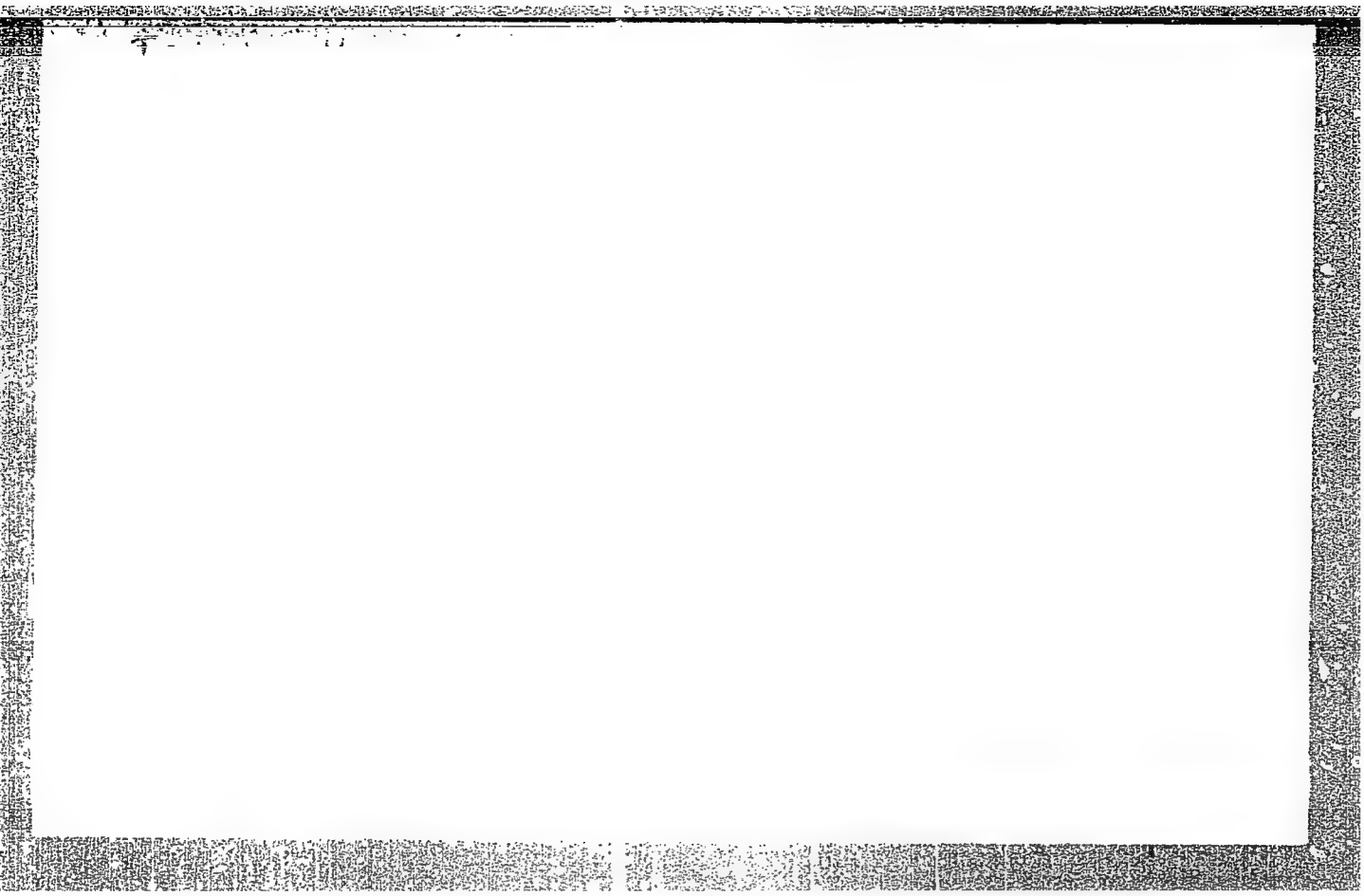
Submitted : September 29, 1952

TSIRLIN, YU A

A simplified method for production of 2-furaldehyde in wood-hydrolysis plants. N. P. Mel'nikov, Yu. A. Tsirlin, and K. A. Kever. *Gidroliz. i Lesokhim. Prom.* 8, No. 2, 10–12(1956).—Fractional condensation of the vapor from hydrolysis of wood gave a preheater condensate contg. 0.3% furaldehyde (I) 0.1% MeOH, and 0.15% AcOH. The compn. of the main condensate contained 11.0% I, 15.2% MeOH, and 63.5% AcOH in the 1st condenser, and 89.0%, 84.8%, and 36.5%, resp., in the 2nd condenser. Because of the low AcOH content in the latter no neutralizing agents had to be added. These expts. led to the design of a continuous rectification column consisting of 2 preheaters, and an exhausting column. Aq. I is collected at the middle, aq. MeOH at the top of the column. J. Jurecic

(2)

Sr. Lab. Asst., All Sci Res Inst Hydrolysis & Sulphite Alcohol Industry



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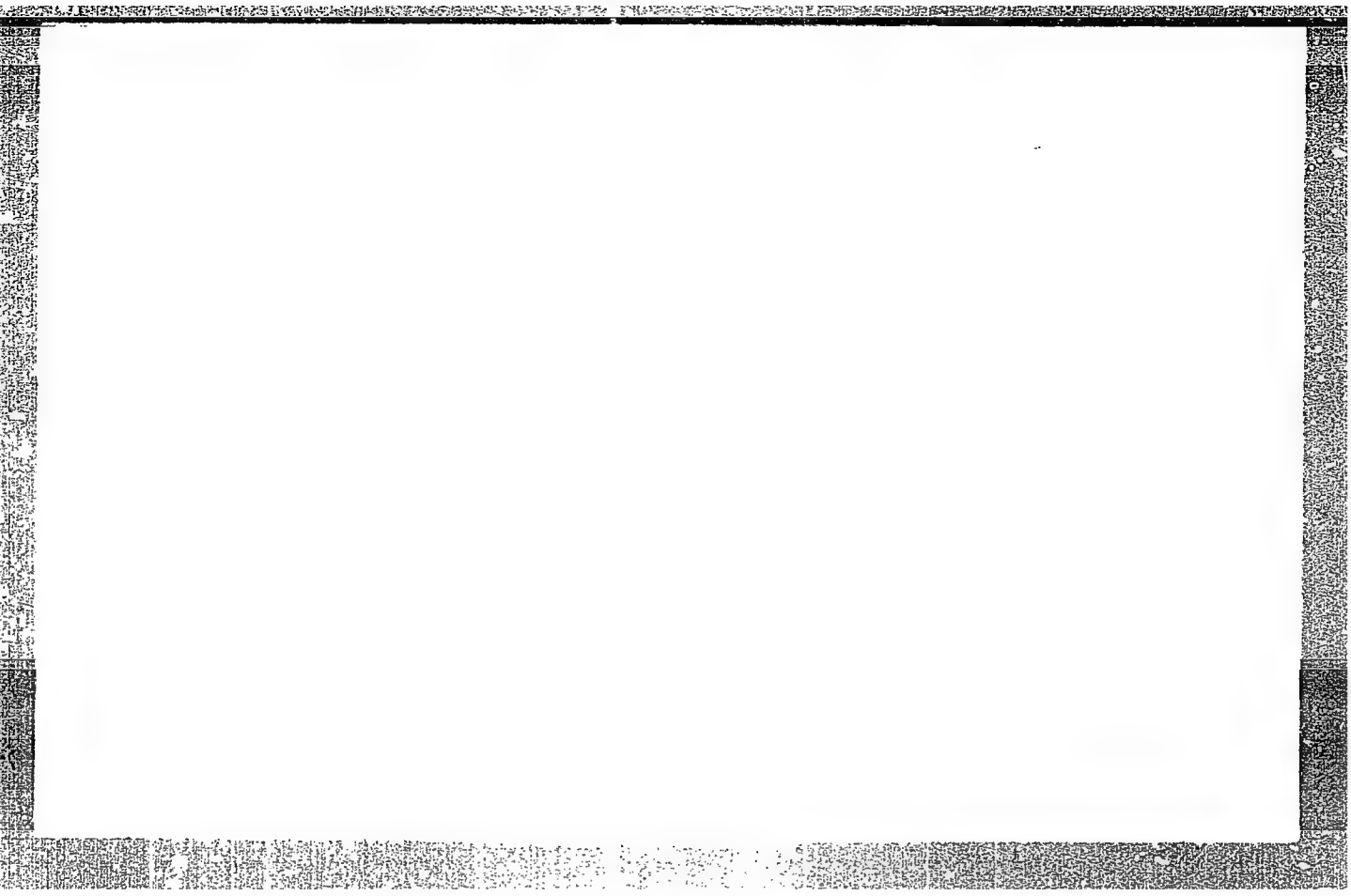

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BANKOVSKIY, Yu.A.; MICULOVINA, Z.V.; TSIRULE, Ya.A.; IYEVIN'SH, A.F. [Ievins, A.]

8-Chloro-8-mercaptoquinoline and its salts. Metod.poluch.khim.reak.i prepar. no.4/5:79-85 '62. (MIRA 17:4)

1. Institut khimii AN Latviyskoy SSR.

STARTSEV, V.I.; BATURICHEVA, Z.B.; TSIRLIN, Yu.A.

Temperature dependence of the luminescence of NaI(Tl) crystals at temperature ranging from 0 to 270° C. Opt. i spektr. 8 no.4:541-544 Apr '60. (MIRA 13:11)

(Sodium iodide) (Luminescence)

TSIRLIN, Yu.A.; STARTSEV, V.I.; SOYFER, L.M.

Luminescence properties of cesium iodide crystals grown from a superheated melt. Opt. i spektr. 8 no.4:537-540 Ap '60. (MIRA 13:11)

(Cesium iodide) (Luminescence)

Tsirlin, Yu. A.

USSR/Thermodynamics. Thermochemistry. Equilibria. Physico-Chemical Analysis. Phase Transitions B-8

Abs Jour : Ref Zhur - Khimiya, No 8, 1957, 26106

Author : N.P. Mel'nikov, Yu.A. Tsirlin
Title : Equilibrium Vapor - Liquid at Partial Condensation in System Methanol - Furfurole - Water - Acetic Acid.

Orig Pub : Zh. prikl. khimii, 1956, 29, No 8, 1159-1164

Abstract : The composition of the liquid and vapor phases at the partial condensation of binary systems furfurole (I) - water(II) and methanol (III) - II and the quaternary system I - II - III - acetic acid (IV) was studied. The installation used for the two-step condensation of water vapor containing insignificant amounts of I, III and IV is described. The experiments with the system I - II were carried out at the concentration of I in the initial vapor of from 0.13 to 0.40% and from 1.5 to 2%. The concentration of III in the vapor of the system II - III varied within the limits from 0.08 to 0.16%. The initial vapor of the system I - II - III - IV contained (in % by weight): (I - from 0.2 to 0.4; III - from 0.11 to 0.24; IV - from 0.15 to 0.20. Balance sheets of materials for the

Card : 1/2

USSR/Thermodynamics. Thermochemistry. Equilibria. Physico-Chemical B-8
Analysis. Phase Transitions.

Abs Jour : Ref Zhur - Khimiya, No 8, 1957, 26106

experiments were prepared; on the basis of equilibrium and balance sheet data, graphs of the distribution of volatile components depending on the condensation grade were plotted. Practical factors of distribution k of investigated substances in the system vapor - liquid were computed: k =7.68 - - 7.23; k_{II} = 8.15 - 8.36; k_{IV} = 0.6.

Card : 2/2

MEL'NIKOV, N.P.; TSIRLIN, Yu.A.

Liquid-vapor equilibrium at increased pressure for the system furfurole-water. Zhur.prikl.khim. 29 no.9:1456-1459 S '56. (MLRA 9:11)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut gidroliznoy i sul'fitnosportovoy promyshlennosti.
(Phase rule and equilibrium) (Furaldehyde)